

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY


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GRAPHIC AND TABULAR SUMMARIES OF WATER AND SUSPENDED-SEDIMENT DISCHARGE  
DURING EIGHT PERIODS OF SYNOPTIC STORM SAMPLING IN THE LOWER DRAINAGE  
BASIN OF REDWOOD CREEK, HUMBOLDT COUNTY, CALIFORNIA

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Open-file report  
*Menlo Park, California*  
*December 1975*



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*By*

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*and* Deborah R. Harden

The following report contains graphs and tables summarizing basic data presented in Iwatsubo and others (1975) and other basic data released to the open-file by the U. S. Geological Survey on November 11, 1975. Data were collected throughout eight storms of low to moderate intensity during the period between November, 1973 and February 1975. Collection sites were located on Redwood Creek and seven of its tributaries. In order to sample adequately the runoff recessions associated with these storms, study periods on Redwood Creek were sometimes longer than those on the tributaries. The report also includes photographs and two tables that indicate the location and physical properties of the drainage basins selected for synoptic studies.

REFERENCES CITED

- Alexander, E., Colwell, W., Delapp, J., Gladish, E., Nelson, R., Skoleman, R., Smith, B., 1959-62, Humboldt County soil-vegetation survey: U.S. Forest Service, Pacific Southwest Forest and Range Experiment Station, 16 maps, Scale 1:31,680.
- Iwatsubo, R. T., Nolan, K. M., Harden, D. R., Glysson, G. D., and Janda, R. J., 1975, Redwood National Park Studies, Data release number 1, Redwood Creek, Humboldt County, California, September 1, 1973-April 10, 1974: U.S. Geol. Survey open-file rept., 123 p.

Table 1.--Station and drainage basin descriptions for synoptic sampling stations

Station description			Drainage basin description								
Number and name	Latitude	Longitude	Area (mi <sup>2</sup> )	Aspect (direction)	Altitude (ft)		Relief (ft/ft)	Area under hypsonetric curve (in <sup>2</sup> )	Hypsometric analysis index	Average ground slope (degrees) (ft/ft)	
					Average	Range					
11482200--Redwood Creek at South Park Boundary, near Orick	41°10'19"	123°56'55"	185	NNW	2,310	230- 5,190	4960	6.55	0.27	14.0	0.240
11482225--Harry Wier Creek near Orick	41°11'53"	123°59'32"	2.96	SW	1,390	120- 2,650	2,530	8.23	.52	15.9	.284
11482250--Miller Creek near Orick	41°13'54"	123°59'30"	.67	W	1,520	930- 2,150	1,220	9.48	.62	17.3	.312
11482260--Miller Creek at Mouth, near Orick	41°13'46"	124°00'36"	1.36	W	1,370	80- 2,150	2,070	9.63	.63	17.0	.306
11482330--Hayes Creek near Orick	41°17'24"	124°01'36"	.58	W	940	80- 1,610	1,530	9.32	.62	18.2	.328
11482450--Lost Man Creek near Orick	41°19'06"	123°59'15"	3.97	NNW	1,400	300- 2,275	1,975	8.83	.59	22.1	.406
11482470--Little Lost Man Creek near Orick	41°19'42"	124°01'29"	3.64 3.46	1/ NNW	1,270	80- 2,280	2,200	8.74	.59	20.8	.380
11482475--Geneva Creek near Orick	41°19'36"	124°01'53"	.08	NNW	520	70- 880	810	10.29	.70	14.8	.260

1/ Sampling site was moved upstream to the edge of the uncut forest at the end of the 1974 storm season.  
Drainage area above the lower site is 3.64 square miles; drainage area above upper site is 3.46 square miles.

Table 1.--Station and drainage basin descriptions for synoptic sampling stations--Continued

Station number and name	Drainage density (mi/mi <sup>2</sup> )	Stream gradient			Stream order	Elon- gation ratio	Soil Series (identification number and percentage of area)	History of land use (percentage of area)		
		Average (ft/mi)	Immediately upstream (ft/mi)	from station (ft/ft)				Logged since establish- ing park	Logged prior to establish- ing park	Virgin and advanced second growth
11482200--Redwood Creek at South Park Boundary, near Orick	4.8	100	0.02	<50	0.00	6	821=30 823= 3 812=20 835= 3 849= 8 840= 3 813/821= 4 816= 4 849/823= 2 700= 3 Others=12 752= 3 812/823= 3 821/816= 3	<5	65	>30
11482225--Harry Wier Creek near Orick	7.9	750	.14	400	.08	4	812=62 821= 5 814=12 840= 4 812/814=10 835= 6 813= 1	39 <sup>2</sup> , 40 <sup>3</sup>	--	61 <sup>1</sup> , 2, 60 <sup>1</sup> , 3
11482250--Miller Creek near Orick	5.3	1100	.21	600	.11	3	812=86 835= 6 814= 8	90 <sup>2</sup> , 3	--	10 <sup>2</sup> , 3
11482260--Miller Creek at Mouth, near Orick	5.7	1050	.20	1750	.33	3	812=72 814= 7 813=15 821= 6	66 <sup>2</sup> , 77 <sup>3</sup>	--	34 <sup>2</sup> , 23 <sup>3</sup>
11482330--Hayes Creek near Orick	7.6	1250	.24	800	.15	3	812/814=64 814=31 813= 5	--	04	96
11482450--Lost Man Creek near Orick	6.5	550	.10	50	.01	4	812/814=51 812=27 814=10 915g=11 814/915g= 1	1 --	87	13
11482470--Little Lost Man Creek near Orick	5.3	350	.07	300	.06	4	812/814=64 814=33 915g= 2 818= 1	--	08	92
11482475--Geneva Creek near Orick	5.9	1300	.24	1750	.33	2	814=90 812/814=10	--	100	--

1 Includes prairies and brushland.

2 Conditions during synoptic sampling periods I-IV in Winter 1973-1974.

3 Conditions during synoptic sampling periods V-VIII in Winter 1974-1975.

Table 2.--*Physical properties of soil series*

[Soil series from Alexander and others (1959-62).]

Soil series		Depth Range (inches)	Color of Surface/Subsoil	Reaction of Surface/Subsoil
Identi- fication number	Name			
700	Miscellaneous land types including colluvium, rock outcrop, active alluvium, talus,			
752	Yorkville	30-60	Grayish brown/ gray	Slightly acid/ alkaline
812	Hugo	30-60	Grayish brown/ pale brown	Slightly acid/ strongly acid
813	Orick	40-70	Brown/ strong brown	Moderately acid/ strongly acid
814	Melbourne	30-60	Brown/ strong brown	Moderately acid/ strongly acid
816	Sites	30-60	Reddish brown/ red	Moderately acid/ strongly acid
818	Usal	30-60	Dark grayish brown/ light yellowish brown	Slightly acid/ strongly acid
821	Masterson	30-60	Brown/ light yellowish brown	Moderately acid/ strongly acid
823	Atwell	36-72	Dark grayish brown/ pale brown	Slightly acid/ strongly acid
835	Kneeland	18-40	Dark grayish brown/ pale brown	Strongly acid/ strongly acid
840	Wilder	26-50	Very dark grayish brown/ light yellowish brown	Very strongly acid/ very strongly acid
849	Tyson	18-48	Dark grayish brown/ pale brown	Slightly acid/ Moderately acid
915	Mendocino	40-90	Brown/ reddish yellow	Slightly acid/ strongly acid
915g	Mendocino (conglomerate)	60+	Brown/ reddish brown	Moderately acid/ strongly acid
920	Empire	40-70	Brown/ yellowish brown	Moderately acid/ strongly acid

Table 2.--*Physical properties of soil series--Continued*

See table 1 for occurrence of soil series]

Texture of Surface/Subsoil	Parent Material	General Drainage	Erosion Hazard	Estimated Suitability	
				Timber Production	Extensive Range Use
and landslides with highly variable properties					
Clay loam/ clay	Metamorphosed rocks	Imperfect	Moderate	Unsuited	Medium to very high
Gravelly loam/ stony clay loam	Sandstone & shale	Good to excessive	Moderate to very high	Moderate to very high	Medium to low
Loam/ clay loam	Schistose sedimentary rocks	Good	Moderate	Medium to very high	Medium
Loam/ clay loam	Sandstone & shale	Good	Moderate	High to very high	Medium
Clay loam/ clay	Schistose sedimentary rocks	Good	Moderate	Variable	Medium
Loam/ clay loam	Sandstone & shale	Good	Moderate	High	Medium to high
Loam/ gravelly loam	Schistose sedimentary rock	Good to excessive	Moderate to very high	Medium to very high	Medium - low
Loam/ Gravelly clay loam	Sheared sedimentary rocks	Imperfect	Moderate to very high	High to very high	Medium
Clay loam/ clay loam	Sandstone & shale	Good	Moderate to high	Unsuited	High
Sandy loam/ gravelly sandy loam	Sandstone	Good to excessive	High to very high	Variable	Low to very low
Gravelly loam/ very gravelly loam	Sandstone & shale	Good to excessive	High to very high	Medium to low	Medium to very low
Loam/ clay	Soft sedimentary rocks	Good	Moderate	High	Medium
Loam/ clay loam	Soft sedimentary rocks	Good	Moderate	Variable	Medium
Loam/ clay loam	Soft sedimentary rock	Good	Moderate to high	High to very high	Medium



# SYNOPTIC I

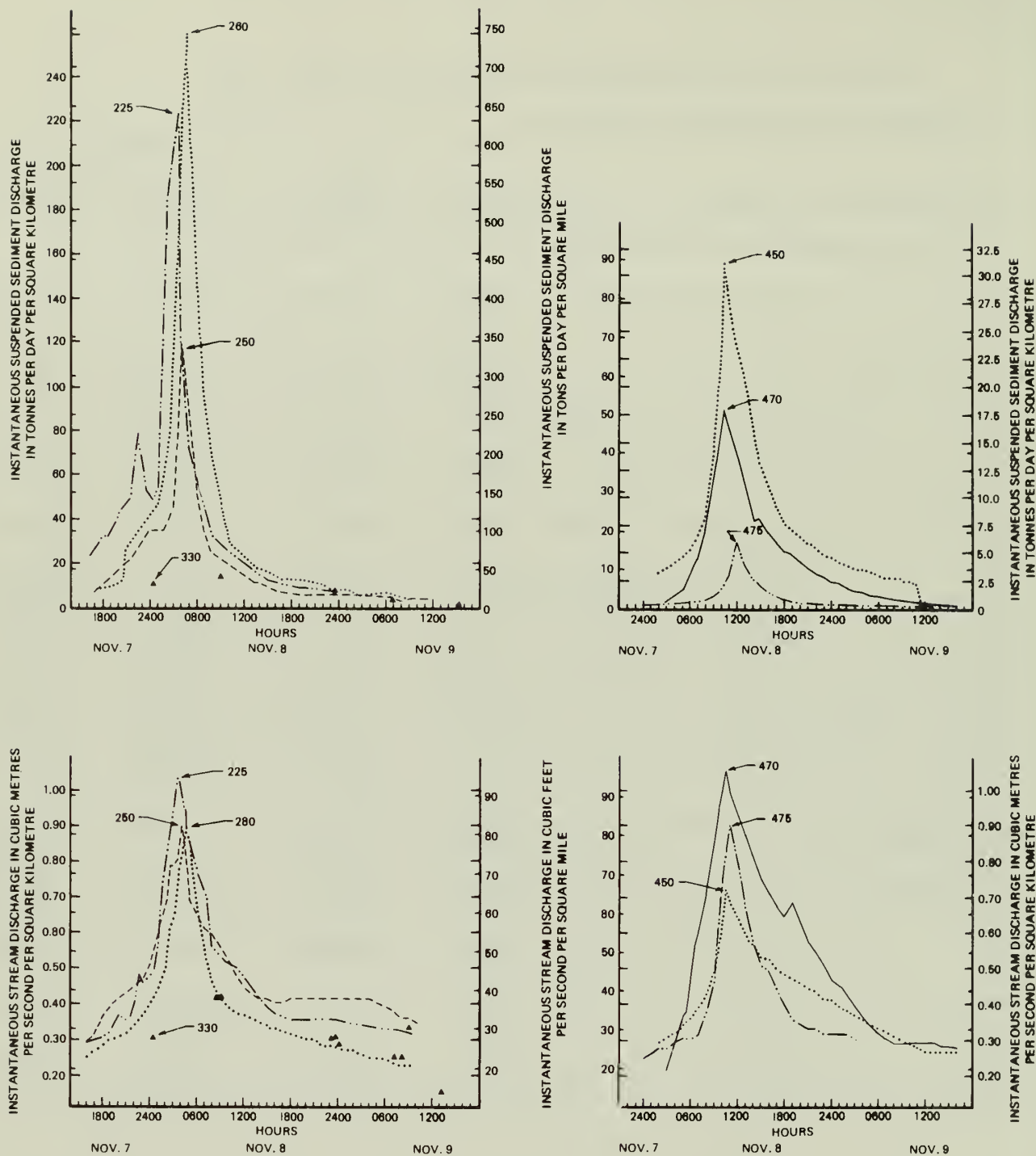


Figure 1.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period I. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.



TABLE 3.--Summary of water and suspended-sediment discharge for synoptic sampling period I -- November 7, 1973 at 2100 hours to November 9, 1973 at 1000 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 9.62 inches on November 7, 1973.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended-Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.61	Not determined	7830	+ 15%	42.8	210	1800
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	2.6	1.10	42	280	+ 10%	94.6	130	724
Miller Creek 11482250 Area - 0.67 sq. mi.	2.4	1.23	51	55.0	+ 10%	82.1	86	465
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	2.2	0.92	42	110	+ 15%	80.9	170	635
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.6	0.52	33	35.0	+ 50%	60.3	Insufficient Data	-
Lost Man Creek 11482450 Area - 3.97 sq. mi.	2.3	1.10	48	260	+ 20%	65.5	33	207
Little Lost Man Creek 11482470 Area - 3.64 sq. mi.	1.6	1.77	>100	350	+ 20%	96.2	19	97
Geneva Creek 11482475 Area - 0.08 sq. mi.	1.2	1.11	93	6.6	+ 10%	82.5	4.8	32

# SYNOPTIC II

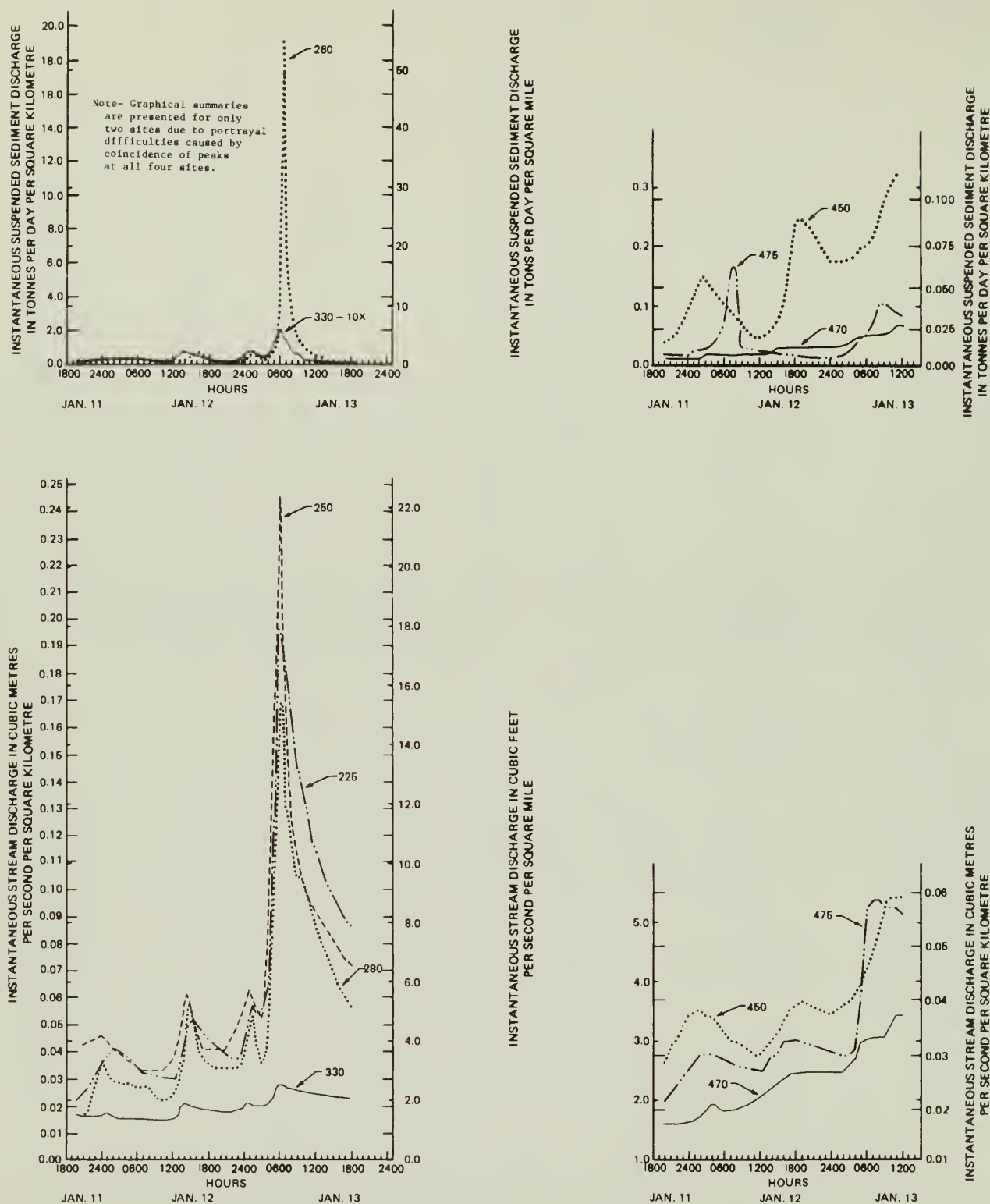


Figure 2.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period II. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.

TABLE 4. --Summary of water and suspended-sediment discharge for synoptic sampling period II -- January 11, 1974 at 2000 hours to January 13, 1974 at 1800 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 4.83 inches on January 11, 1974.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended-Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South <sup>2/</sup> Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.09	Not determined	978	± 10%	5.3	12 <sup>3/</sup>	393
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	2.1	0.28	13	11.0a, 14.0b, 15.5c, 53.0d	± 10% a-c ± 20% d	3.7a, 4.7b, 5.2c, 17.9d	5.8	186
Miller Creek 11482250 Area - 0.67 sq. mi.	1.9	0.25	13	2.8a, 3.8b, 3.9c, 15.0d	± 10% a-c ± 30% d	4.2a, 5.7b, 5.8c, 22.4d	4.6	149
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.8	0.24	13	4.4a, 7.2b, 6.5c, 21.0d	± 5% a-d	3.2a, 5.3b, 4.8c, 15.4d	3.7	150
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.4	0.03	2	0.91a, 1.1b, 1.1c, 1.5d	± 20% a-d	1.6a, 1.9b, 1.9c, 2.6d	0.2	17
Lost Man Creek <sup>4/</sup> 11482450 Area - 3.97 sq. mi.	1.5	-	-	14.0a, 14.5b, 21.5c	± 20% a-c	3.5a, 3.7b, 5.4c	-	-
Little Lost Man Creek <sup>4/</sup> 11482470 Area - 3.64 sq. mi.	1.6	-	-	7.0a, 9.0b, 11.1c, 12.5d	± 5% a-d	1.9a, 2.5b, 3.0c, 3.4d	-	-
Geneva Creek <sup>4/</sup> 11482475 Area - 0.08 sq. mi.	1.2	-	-	0.22a, 0.24b, 0.43d	± 50% a-d	2.8a, 3.0b, 5.4d	-	-

<sup>1/</sup> Individual peaks are assigned letter subscripts.

<sup>2/</sup> Storm period used was from January 11 at 2000 hours to January 14 at 0400 hours. Rise from new storm began at 0400 hours on January 14.

<sup>3/</sup> Sediment concentration graph was determined from two samples and from a sediment transport curve for the period of record.

<sup>4/</sup> Total storm runoff and total suspended sediment load were not determined because recession was not monitored at these sites.

# SYNOPTIC III

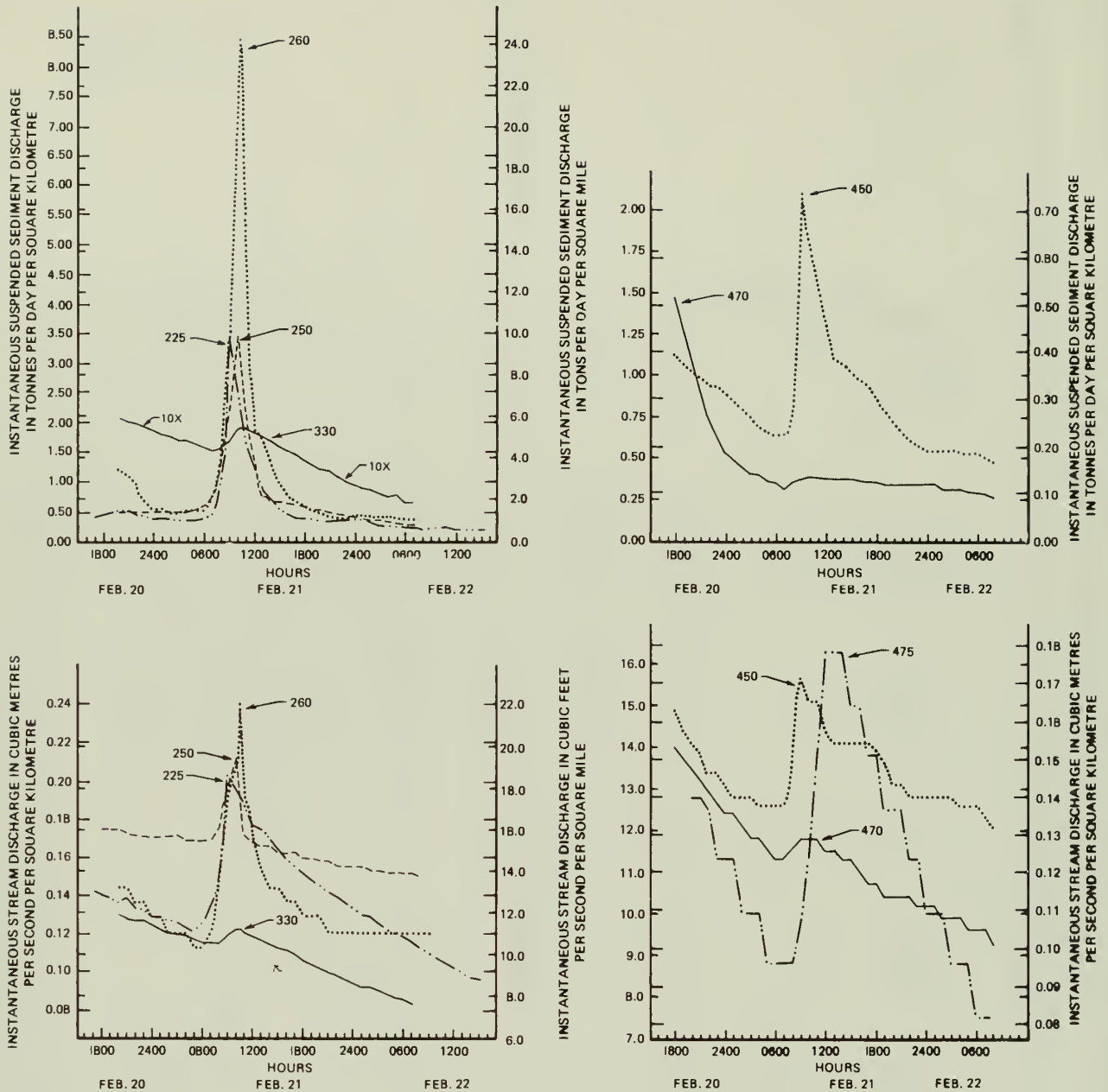


Figure 3.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period III. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.

TABLE 5.--Summary of water and suspended-sediment discharge for synoptic sampling period III --  
February 20, 1974 at 2000 hours to February 22, 1974 at 0700 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 6.22  
inches on February 20, 1974.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended- Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.07	Not determined	2680	+ 15%	14.6	51	952
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.0	0.12	12	55.0	+ 10%	18.6	2.4	45
Miller Creek 11482250 Area - 0.67 sq. mi.	1.1	0.01 <sup>1/</sup>	1 <sup>1/</sup>	13.0	+ 20%	19.4	3.0	49
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	0.9	0.15	17	30.0	+ 5%	22.1	4.6	83
Hayes Creek 11482330 Area - 0.58 sq. mi.	0.8	0.007	1	6.5	+ 10%	11.2	0.6	14
Lost Man Creek 11482450 Area - 3.97 sq. mi.	0.9 b	0.48	5	62.0	+ 10%	15.6	1.2	22
Little Lost Man Creek 11482470 Area - 3.64 sq. mi.	0.8	0.008	1	43.0	+ 10%	11.8	0.6	13
Geneva Creek 11482475 Area - 0.08 sq. mi.	0.7	0.32	4	1.32	+ 20%	16.5	Insufficient Data	-

<sup>1/</sup> Low runoff reflects the fact that much of the precipitation at higher parts of this drainage basin was snow.

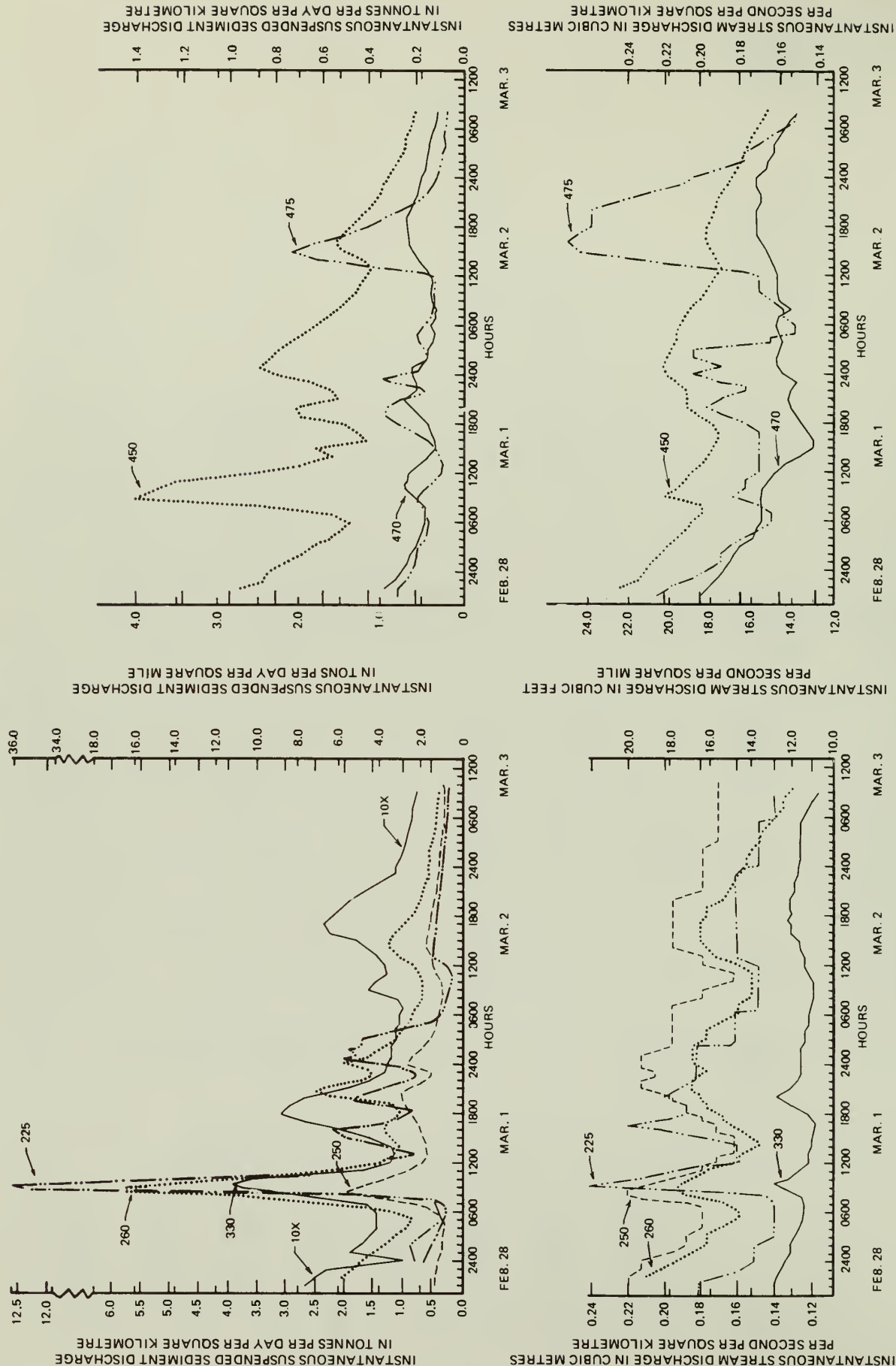


Figure 4.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period IV. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.



TABLE 6. --Summary of water and suspended-sediment discharge for synoptic sampling period IV --  
February 28, 1974 at 2200 hours to March 3, 1974 at 0800 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 6.78  
inches on February 28, 1974.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak $\frac{1}{2}$ Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended- Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South $\frac{2}{2}$ Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.63	Not determined	4400	+ 10%	24.0	163	1226
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.4	0.95	68 (?)	66.0a, 59.0b 53.0c, 47.0d 45.0e	+ 15% a-e	22.3a, 19.9b 17.9c, 15.9d 15.2e	7.2	71
Miller Creek 11482250 Area - 0.67 sq. mi.	1.4	0.28	20	12.0a, 13.0c 12.4e	+ 15% a-c	17.9a, 19.4c 18.5e	4.1	38
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.4	0.31	22	23.8a, 23.0e	+ 10% a, e	17.5a, 16.9e	8.9	87
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.6	0.05	3	7.5a, 7.5c 7.1e	+ 10% a + 15% c-e	12.9a, 12.9b 12.2e	1.3	17
Lost Man Creek 11482450 Area - 3.97 sq. mi.	1.4	0.12	9	80.0a, 76.0c 80.0d, 72.0e	+ 5% a-e	20.2a, 19.1c 20.2d, 18.1e	3.9	30
Little Lost Man Creek 11482470 Area - 3.64 sq. mi.	1.6	0.15	9	56.5a, 53.0b 53.5c, 54.0d 57.5e	+ 5% a-e	15.5a, 14.6b 14.7c, 14.8d 15.8e	1.2	12
Geneva Creek 11482475 Area - 0.08 sq. mi.	1.6	0.40	25	1.4a, 2.0b	+ 20% a, b	17.5a, 25.0e	1.8	15

$\frac{1}{1}$  Individual peaks are assigned letter subscripts.

$\frac{2}{2}$  Storm period from March 1, 1974 at 0700 hours to March 3, 1974 at 1200 hours.



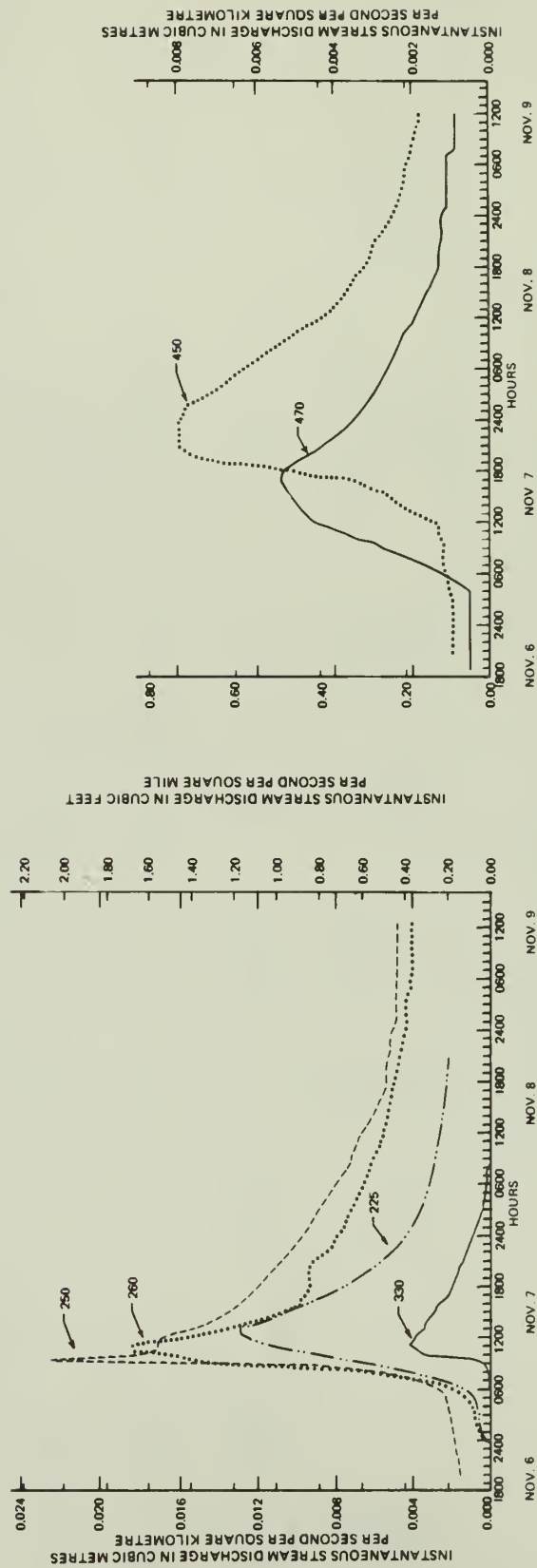
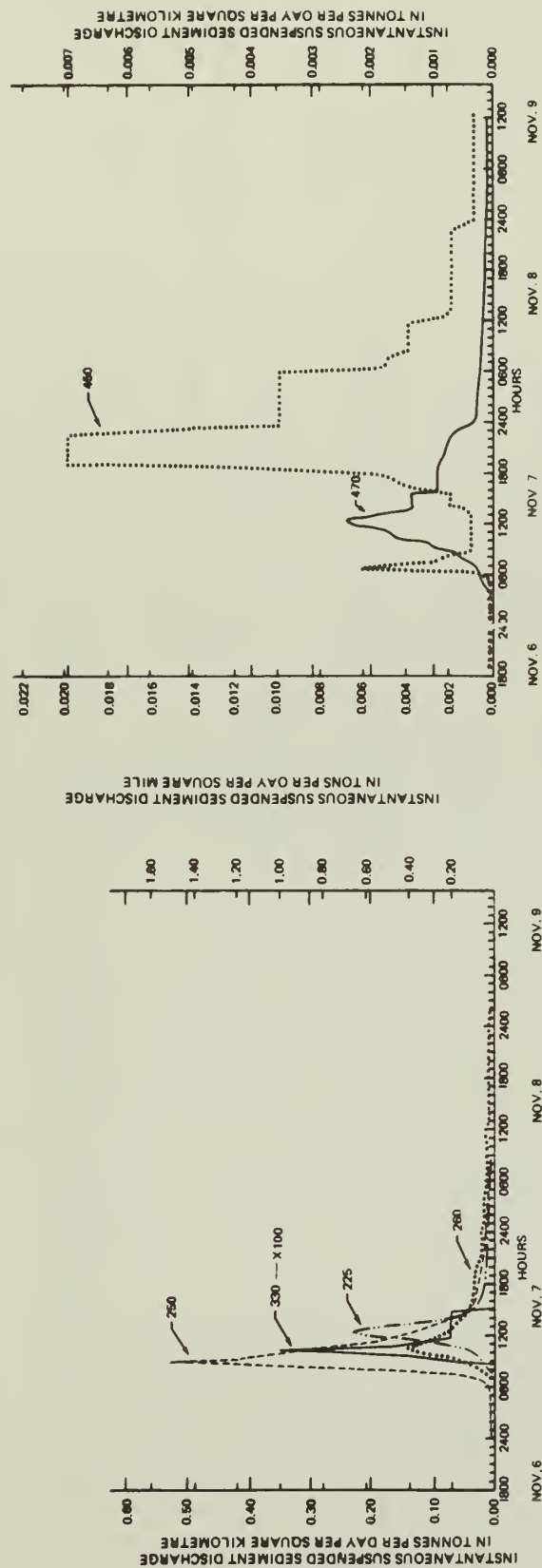


Figure 5.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period V. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.

TABLE 7.--Summary of water and suspended-sediment discharge for synoptic sampling period V -- November 7, 1974 at 0100 hours to November 9, 1974 at 1200 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 1.69 inches on November 6, 1974.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended-Sediment Load For Storm <sup>1/</sup> (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Insufficient Data.								
Redwood Creek at South Park Boundary 11482200 Area - 183 sq. mi.	1.2	.029	2	3.50	± 15%	1.2	0.10	41
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.2	.053	4	1.40	± 30%	2.1	0.14	29
Miller Creek 11482250 Area - 0.67 sq. mi.	1.1	.052	5	2.28	± 20%	1.7	0.13	32
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.1	.012	1	0.22	± 05%	0.4	0.00	1
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.3	.023	2	2.90	± 05%	0.7	0.01	4
Lost Man Creek 11482450 Area - 3.97 sq. mi.	1.2	.015	1	1.70	± 15%	0.5	0.00	2
Little Lost Man Creek 11482470 Area - 3.46 sq. mi. <sup>2/</sup>	1.0	Stream displayed no measurable response						
Geneva Creek 11482475 Area - 0.08 sq. mi.								

<sup>1/</sup> Because low suspended-sediment concentrations characterized this synoptic sampling event, three significant figures are needed to indicate suspended-sediment loads.

<sup>2/</sup> Sampling site was moved upstream to the edge of the uncut forest at the end of the 1974 storm season. Drainage area above the upper site (occupied during synoptics V-VIII) is 3.46 square miles.

# SYNOPTIC VI

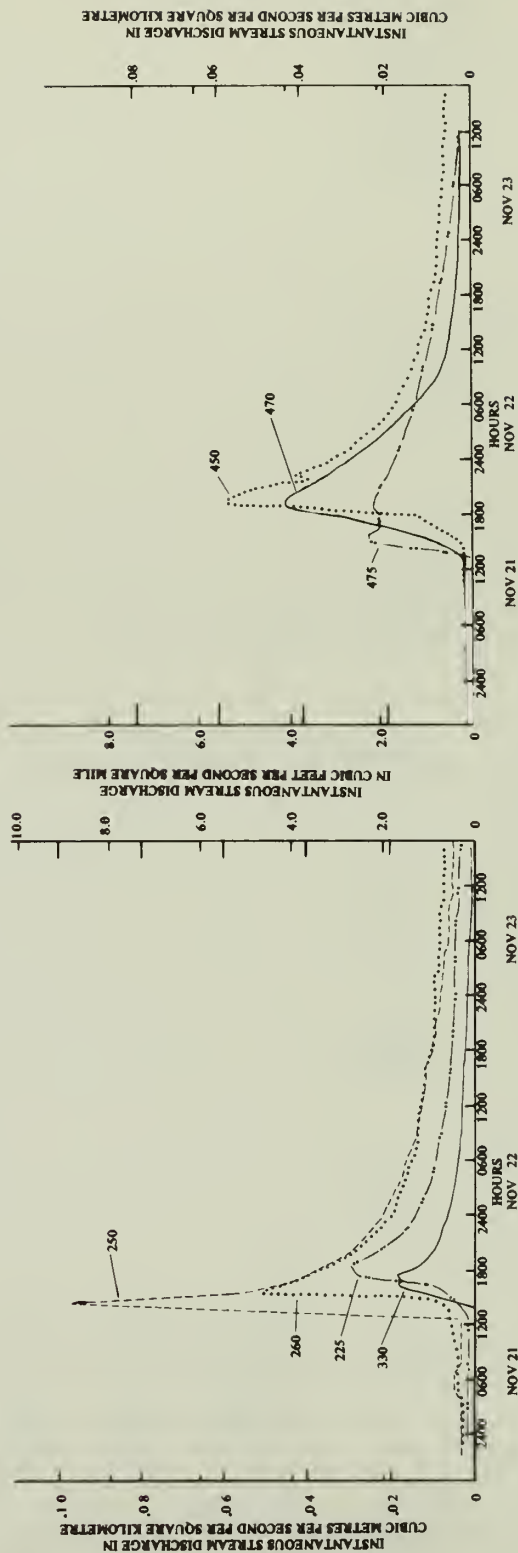
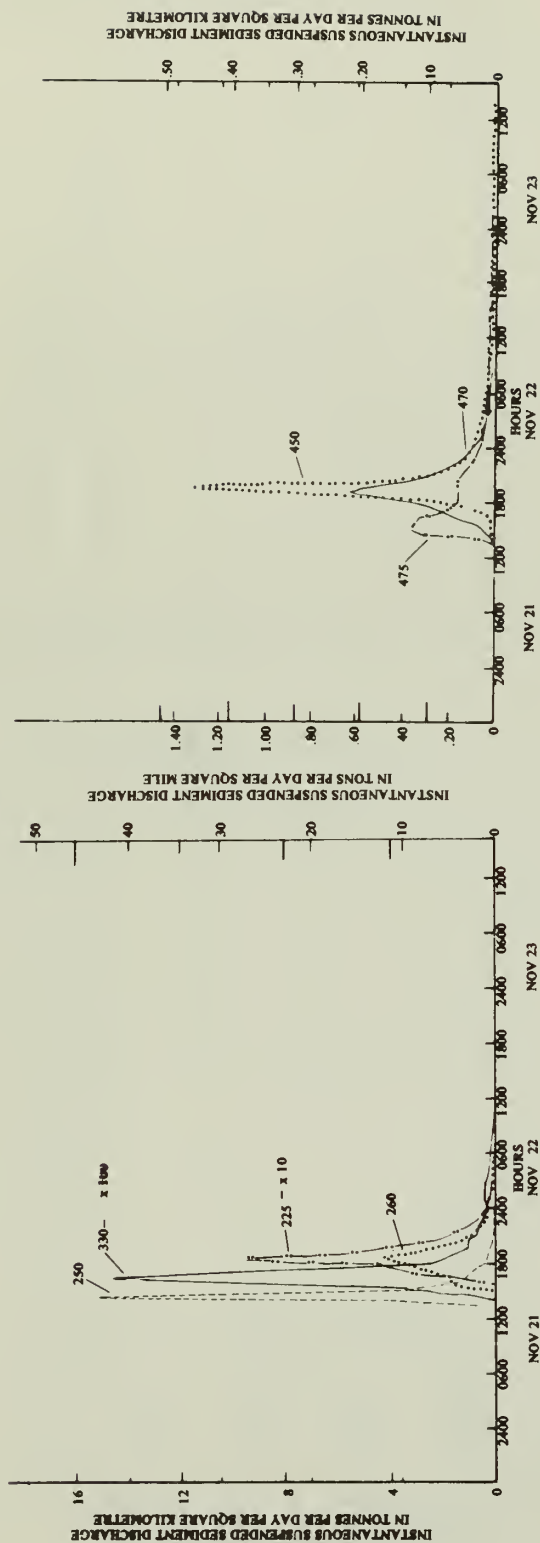


Figure 6.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period VI. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.

TABLE 8.--Summary of water and suspended-sediment discharge for synoptic sampling period VI -- November 21, 1974 at 1200 hours to November 24, 1974 at 1200 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 2.29 inches on November 20, 1974.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended-Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South <sup>2/</sup> Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.03	Not determined	180	± 10%	1.0	0.6	123
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.2	0.06	5	8.20	± 5%	2.8	0.3	52
Miller Creek <sup>1/</sup> 11482250 Area - 0.67 sq. mi.	1.4	0.10	7	6.00	± 20%	9.0	2.0	200
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.4	0.10	7	6.30	± 5%	4.6	2.0	189
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.6	0.03	2	0.97	± 15%	1.7	0.0	18
Lost Man Creek 11482450 Area - 3.97 sq. mi.	1.4	0.10	7	21.0	± 20%	5.3	0.2	17
Little Lost Man Creek 11482470 Area - 3.46 sq. mi.	1.3	0.04	3	14.0	± 10%	4.0	0.1	16
Geneva Creek 11482475 Area - 0.08 sq. mi.	1.2	0.11	9	0.18	± 15%	2.2	0.1	13

<sup>1/</sup> Miller Creek displayed very late sediment peak. <sup>2/</sup> Storm period from November 21, 1974 at 1400 hours to November 24, 1974 at 1200 hours.

# SYNOPTIC VII

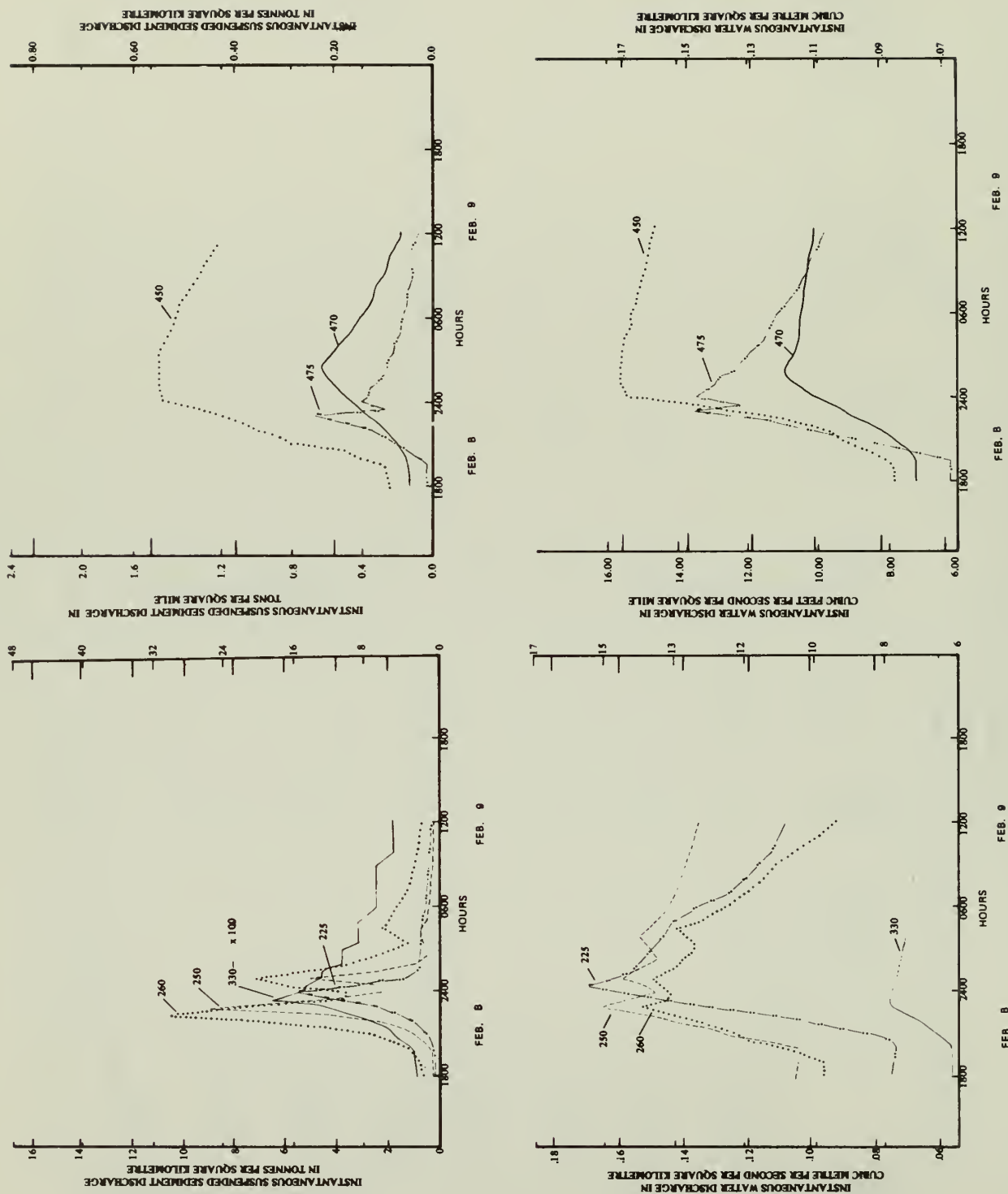


Figure 7.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period VII.  
The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.

TABLE 9.--Summary of water and suspended-sediment discharge for synoptic sampling period VII -- February 8, 1975 at 1800 hours to February 9, 1975 at 1200 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 6.03 inches on February 8, 1975.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak $\frac{1}{2}$ Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak $\frac{1}{2}$ Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended-Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South $\frac{2}{1}$ Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.30	Not determined	4770	$\pm 10\%$	26.1	120	2260
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.0	0.10	10	46.0b	$\pm 10\%$	15.5b	1.9	94
Miller Creek 11482250 Area - 0.67 sq. mi.	1.0	0.09	9	10.1a, 9.75b 9.40c	$\pm 10\%$ a-c	15.1a, 14.6b 14.0c	2.6	101
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.0	0.07	7	19.0a, 18.4b 17.5c	$\pm 15\%$ a-c	14.0a, 13.5b 12.9c	5.8	249
Hayes Creek 11482330 Area - 0.58 sq. mi.	0.8	0.02	3	4.04a	$\pm 10\%$	7.0a	0.1	5
Lost Man Creek 11482450 Area - 3.97 sq. mi.	1.0	0.17 $\frac{3}{2}$	17	62.2b	+ 5%	15.7b	0.9 $\frac{3}{2}$	33
Little Lost Man Creek 11482470 Area - 3.46 sq. mi.	1.0	0.07 $\frac{3}{2}$	7	38.0b	$\pm 10\%$	11.0b	0.3 $\frac{3}{2}$	14
Geneva Creek 11482475 Area - 0.08 sq. mi.	0.8	0.12	15	1.08a, 1.08b	$\pm 20\%$	13.5a, 13.5b	0.2	7

1/ Individual peaks are assigned letter subscripts.

$\frac{2}{2}$  Storm period from February 8, 1975 at 1800 hours to February 9, 1975 at 1600 hours.  
New storm began at 1600 hours on February 9.

$\frac{3}{3}$  Represents minimum value due to limited recession before subsequent storm.



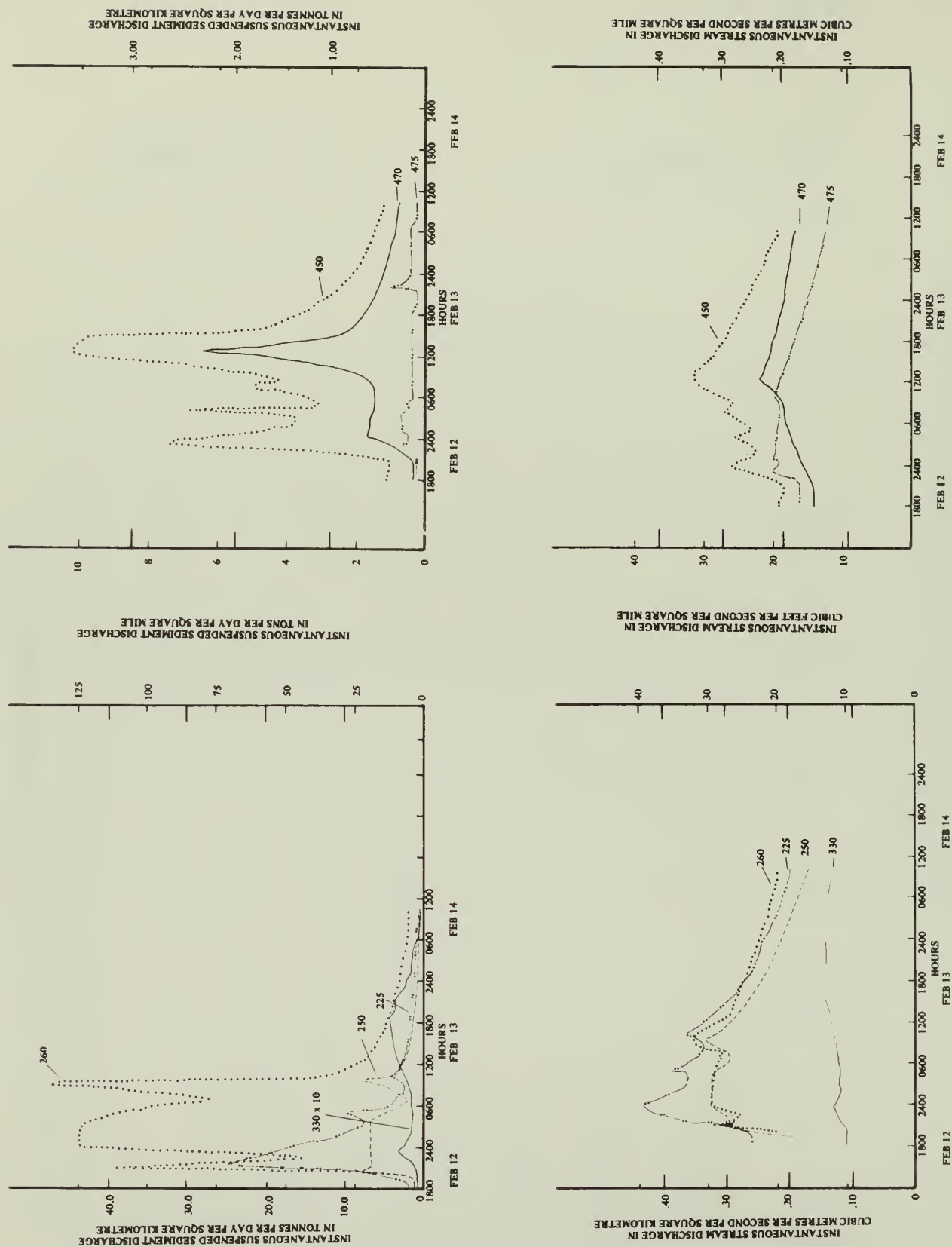


Figure 8.--Graphs of water and suspended-sediment discharge during Synoptic Sampling Period VIII. The numbers used to identify the various lines on these graphs are the last three digits of the station identification numbers given in the tables.



TABLE 10.--Summary of water and suspended-sediment discharge for synoptic sampling period VIII--  
February 12, 1975 at 1800 hours to February 14, 1975 at 1000 hours.  
The antecedent precipitation index for the Orick-Prairie Creek rain gage was 7.98  
inches on February 12, 1975.

Stream and Station Number	Average Rainfall (in.)	Total Storm Runoff (in.)	Percent Runoff	Peak Discharge (cfs)	Estimated Accuracy of Peak Discharge	Peak Discharge Per Square Mile (cfs per sq. mi.)	Total Suspended- Sediment Load For Storm (tons per sq. mi.)	Average Suspended Sediment Concentration (mg/l)
Redwood Creek at South <sup>2/</sup> Park Boundary 11482200 Area - 183 sq. mi.	Not determined	0.19	Not determined	8000	+ 15%	43.7	239	2340
Harry Wier Creek 11482225 Area - 2.96 sq. mi.	1.7	0.30	18	117a, 104b 98.0c	+ 5% a	39.5a, 35.1b 33.1c	22	82
Miller Creek 11482250 Area - 0.67 sq. mi.	1.8	0.41	23	20.0a, 19.8b 20.5c	+ 15% a + 5% b, c	29.9a, 29.6b 30.6c	14	129
Miller Creek at Mouth 11482260 Area - 1.36 sq. mi.	1.7	0.35	21	40.0a, 40.4b 43.8c	+ 5% a-c	29.4a, 29.7b 32.2c	70	603
Hayes Creek 11482330 Area - 0.58 sq. mi.	1.4	0.14	10	6.9b, 7.6c	+ 20% b, + 10% c	11.9b, 13.1c	1.0	18
Lost Man Creek 11482450 Area - 3.97 sq. mi.	1.2	0.37	31	103a, 108b 124c	+ 10% a-c	25.9a, 27.2b 31.2c	6.5	58
Little Lost Man Creek 11482470 Area - 3.46 sq. mi.	1.5	0.23	15	76.0c	+ 5%	22.0c	2.5	30
Geneva Creek 11482475 Area - 0.08 sq. mi.	1.2	0.33	28	1.59a, 1.59b 1.58c	+ 15% a-c	19.9a, 19.9b 19.8c	0.7	9

<sup>1/</sup> Individual peaks are assigned letter subscripts.

<sup>2/</sup> Storm period from February 12, 1975 at 2200 hours to  
February 13, 1975 at 2000 hours.



Plate 1. Drainage basins selected for synoptic sampling--northern basins. Black lines show drainage divides. Numbers indicate the last three digits of station identification numbers listed in accompanying Tables. Photos taken April, 1974.





Plate 2. Drainage basins selected for synoptic sampling--southern basins. Black lines show drainage divides. Numbers indicate the last three digits of the station identification numbers listed in accompanying Tables. Photostaken April, 1974.

